A Case of Primary Cutaneous Actinomycosis

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Actinomycosis as a cause of chronic or indolent suppuration possessing certain clinical characteristics is now widely recognised, and once suspected is as a rule easy to demonstrate in a given case.

The disease is not particularly common in general practice, even in agricultural areas where one would expect its highest incidence, and a case which came my way recently showed some interesting and unusual features which I thought worthy of report.

It has been stated by Hamilton Bailey (1) that two-thirds of all human cases of actinomycosis occur in the neck and face (facio-cervical), and that in that situation it vies with branchial cyst for the premier place as the most frequently missed lesion.

Less frequently it may occur in some part of the alimentary canal; especially in the cæcum, appendix, or liver. Again, it has been recorded as occurring primarily in the lungs and central nervous system, and it is stated in a standard textbook of surgery (2) that the skin may also be affected, but in the majority of cases only by extension from the deeper tissues.

Conflicting opinions are held concerning the modes of spread of actinomycosis. Cranston Low (3) states that it spreads by the lymphatics either direct to the skin or through infected lymphatic glands, the infective organism having gained entrance through a decayed tooth; while Hamilton Bailey (4) states that the spread is by direct continuity, that lymphatic spread is practically unknown, but that late in the disease blood-borne metastases may occur, though they are not rare.

The medical history for the past twelve years of the case under review, a gardener, aged 60 years, is as follows :—

1920.—While employed as a cattleman, the patient gradually developed a series of reddish painless blotches on the skin. The patches varied in size from that of a shilling to that of a saucer, and were distributed over the whole surface of the body except the face. There was no history of an injury at the time of their occurrence, and the general health remained unaffected.

1926.—December—"Septic thumb" of three weeks' duration. His occupation at this time was that of a gardener.

1927.—February—Suppurating spot developed on the scrotum. Healing occurred uneventfully.

1927.—July—Sudden onset of suppurating sores on the skin of the back, left thigh, left upper gluteal region, lumbo-sacral region, and left arm. There was considerable constitutional disturbance, and the patient was treated in the City and County Infirmary, Derry, where the causal organism was identified as the ray fungus, and was found in pus from a sore. Deep ulceration occurred in several of the sores, which healed slowly, with the formation of considerable scar tissue. The patient was treated with potassium iodide, which he continued to take for about six months following discharge from hospital.

1929.—February—Acute appendicitis occurred. Operation was performed in City and County Infirmary. There is no bacteriological record of the nature of this infection.

1929.—June—An attack of threatened intestinal obstruction occurred. This was relieved by non-operative measures in hospital.

1931.—April—Scrotal abscess developed, the cause of which was assigned to the stab of a stick received while at work. This lesion healed with rest and fomentations.

1931.—May—Infected tooth socket followed extraction. There was considerable delay in healing.

1931.—November-December—There developed a swollen and indurated area in the perineum, situated close to the anterior anal margin and extending forward for a distance of about half an inch. The condition somewhat resembled that found in peri-urethral abscess, but there were no urinary disturbances, and in a day or two the mass broke down and discharged thick yellow pus. The ray fungus was obtained from the pus, and it was possible to culture it on suitable media. There was no history of an injury to account for the trouble, nor was there any pathological activity in the area of the scrotum, which in the previous April had been involved in an abscess.

1932.—Seen recently, the patient was in apparent good health, and had returned to his work as gardener. Examination of the chest revealed fine inspiratory crepitations at both lung bases, but the patient remains free from symptoms of disease of the respiratory organs. His only complaints were that he could not sleep well at night, and had begun to feel somewhat "nervous" of late. He is thoroughly convinced that "the fungus" will get the better of him yet, for which belief, possibly, he has a modicum of justification.

The Wassermann reaction was negative.

TREATMENT.

During his last illness the patient was treated at home. The sinus in the perineum was opened up and packed for forty-eight hours with strips of gauze soaked in tr. iodine, as recommended by Hamilton Bailey. The dressing subsequently was ung. iod. denig., freely applied and covered with lint.

Iodine was given internally in milk as introduced by Chitty; the dose of the iodine (two per cent. fresh tincture) being gradually increased from five drops to ten drops three times a day. Under this treatment the lesion rapidly healed and was almost gone in a fortnight.

The patient is still taking iodised milk.

CONCLUSION.

The foregoing is the description of a case of primary actinomycosis of the skin, in which on different occasions of its outbreak the ray fungus has been identified by independent observers. There is no positive evidence of involvement of internal organs or structures, and it is difficult to surmise how the fungus gained entrance in the first instance, and having done so, what the modes of spread were which

resulted in lesions occurring at such remote and dissociated parts of the body as the shoulder and the perineum. The most common method of spread is by direct continuity. This does not explain, however, the very frequent lesions which occur in a given case in tissues remote from the original abscess, e.g., lungs, pleura, brain, etc. (5), and these are undoubtedly pyæmic. This does not necessarily mean that a septicæmic condition does or can exist, but merely that infected material must travel by either the blood-stream or lymph channels to give rise to typical abscesses remote from the original lesion. No instance is recorded of the ray fungus being isolated from the blood-stream—to do so, I understand, would be a mere accident. It is impossible to imagine a condition of septicæmia in actinomycosis such as obtains in anthrax, typhoid, etc.

I wish to thank Dr. Johnston for his assistance in the investigation of this case, and for the help which he has given me in compiling these notes.

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Nature's Effort to Cure an Appendicitis

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ON 21st July, 1930, I was asked to visit W. H., aged 15 years, who gave the following history: Three days previously he was attending a stonemason, and in the intervals of leisure he retired to a half-ripe gooseberry bush, at which he indulged freely. That night he took ill with vomiting and diarrhœa. When I saw him he had a well-marked peritonitis, with a large quantity of free fluid in his abdomen. It was a difficult question to decide whether he would have a better chance of recovery after an operation or by expectant treatment. After a consultation I decided on the latter course. He did so well on this treatment that he was quite better by the 12th August, 1930. On the 23rd of the following November I was asked again to visit this patient. He now had a well-marked attack of acute appendicitis. I took him straight to hospital, and Dr. Mant Martin operated. On opening the abdomen, he found a stump of an appendix about one inch long, greatly enlarged and inflamed, with a tapering point. This was removed, and attention was then directed to a lump about the size of a duck's egg lying alongside the cæcum, wrapped up in the great omentum. This was also removed, and inside was found an appendix two and a half inches long and as thick as a man's thumb. Nature had thus performed an amputation, and wrapped up the separated part in several folds of the great omentum. The patient made a good recovery, though he had a sharp attack of measles.